



**Tiny Air automated pre-clean machine**

# **Specification and installation requirements**

**Date:** 28-11-25

**Author:** Chris Helson (Contact: 07799 300800)

**Approval:** David Ralston (Contact: 01557 814476)

**Version:** TA002.1 | **Revision:** 3.0

# Specification Overview

## Automated Surgical Instrument Pre-clean System

Serial No	Model	GMDN	Name
TA-2.1-002	V2.1	67328	

Supply

415v 3~+N+PE/50Hz

Power

7.5KW

Water Pressure

150 BAR

Auto Disinfection Temp

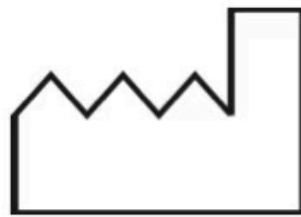
90C

Manufactured by:

Tiny Air Limited

Castle Douglas

DG7 2EN



06-2024



**UK**  
**CA**

This document outlines the complete specification and installation requirements for the automated pre-clean machine, including electrical, plumbing, and installation guidance to ensure proper setup and operation.

# 1.0 Installation

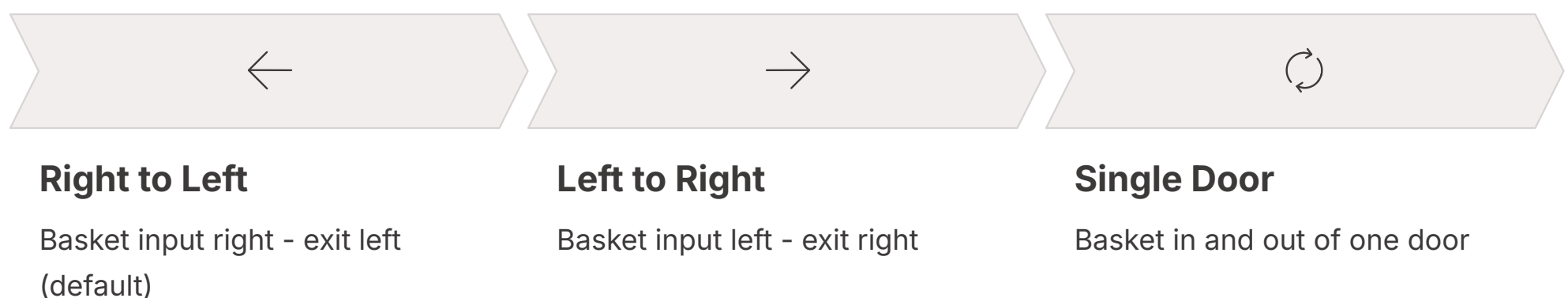
## 1.1 Direction of workflow

The unit can be programmed for workflow from either direction (i.e baskets loaded in the left door and exit out of the right door or vice versa), or in and out of the same door. Please see the image below and specify the required programming for your needs.

The default coding is set to basket input right - exit left.



## Workflow Configuration Options



## Installation Guidance

### Exit Door Positioning

Exit door is ideally positioned to open over a sink drainer.

### Supply Positioning

Plumbing and electrical supply must be positioned at left hand end of machine.

### Water Inlet Pipe

New installations are fitted with a large bore braided stainless steel water inlet pipe supplied.

# 2.0 Electrical Requirements

This section provides a detailed overview of the electrical specifications and setup procedures necessary for the safe and efficient operation of the Tiny Air automated pre-clean machine.

## 16A 3P+N+E 400V Interlocked Switched RCD Protected Socket IP44

RCD 25 amp 0.1a 400v 6000

1 x 5 pin 16 amp three phase wall mounted socket with isolator switch and 100ma RCD protection.

The base of the socket box positioned 1.5m from floor level to the upper left-hand side of the machine.

### Electrical Installation Details

### Socket Positioning and Protection

The electrical connection requires careful positioning and proper protection to ensure safe operation of the automated pre-clean machine.

- Wall mounted socket with isolator switch
- 100ma RCD protection included
- IP44 rating for water resistance
- Positioned 1.5m from floor level
- Located at upper left-hand side of machine



#### Standard Running Current

10 amp

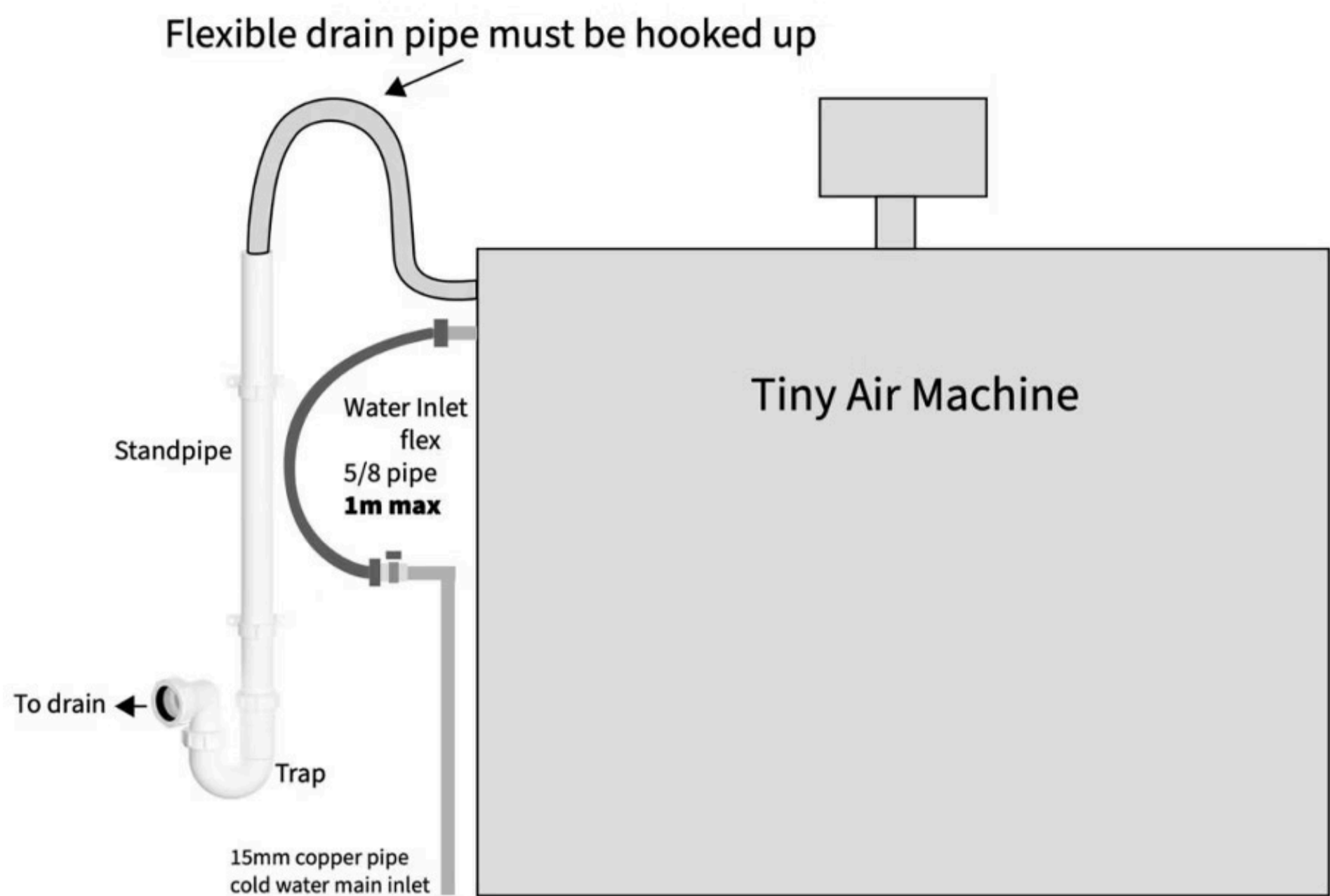
#### Maximum Running Current

12 amp

#### Recommended ECB Rating

16 amp

## 3.0 Plumbing Requirements



The automated pre-clean machine requires specific plumbing provisions for both water supply and drainage to ensure optimal performance and prevent operational issues.

### Water Supply Connection

A continuous supply of clean, potable water is essential for the machine's operation. Ensure the connection meets the following specifications:

- Connection: 3/4" BSP threaded inlet
- Pressure: 2-6 bar (29-87 psi)
- Temperature: 5-40°C (41-104°F)
- Flow Rate: Minimum 10 liters/minute
- Shut-off Valve: A readily accessible shut-off valve must be installed on the supply line.

### Drainage Requirements

Adequate drainage is crucial to manage wastewater effectively and maintain a sanitary operating environment. Adhere to these guidelines for proper drainage setup:

- Connection: 50mm (2 inch) diameter waste pipe
- Location: Must be positioned directly below the machine's drain outlet
- Gradient: A minimum fall of 1:50 must be maintained for gravity drainage
- Trapping: An appropriate trap (e.g., P-trap or S-trap) is required to prevent odors
- Ventilation: Ensure proper ventilation for the drain system to prevent siphoning

#### Water Quality

Supply water should be potable and free from suspended solids and excessive hardness to prevent scaling and damage to internal components.

#### Pipe Material

All plumbing connections and pipes must be made of corrosion-resistant materials suitable for potable water applications.

#### Accessibility

Ensure all valves, connections, and traps are easily accessible for maintenance and service.

# 3.1 Plumbing Installation Details

## Water Supply and Drainage

Proper plumbing installation is essential for the machine's cleaning cycle and drainage system.

### Inlet Specifications

- 15mm x 15mm x ¾" connection
- Cold water mains supply
- Isolator valve within 1m
- Located at rear left hand side

### Outlet Specifications

- Standard 21mm flexible hose
- Washing machine type fitting
- Drain connection required
- Positioned near sink drainer

This diagram illustrates the complete plumbing setup for the automated pre-clean machine, showing the water inlet connection, standpipe, trap, flexible drain pipe, and drainage points.



# Contact Information and Support



## Author

**Chris Helson**

Contact: 07799 300800

[chris@tinyair.co.uk](mailto:chris@tinyair.co.uk)



## Approval

**David Ralston**

Contact: 01557 814476



## Document Details

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For installation support or technical questions regarding the automated pre-clean machine specification and installation requirements, please contact the individuals listed above.